

portion, the shape memory of the superelastic austenitic portion tending to form the stent to a larger diameter due to its shape memory but being restrained therefrom by the martensitic alloy portion whereby the austenitic alloy portion can be deformed by external force without plastic deformation along with the martensitic portion to an enlarged stent diameter beyond that of the self-expanded diameter.--

REMARKS

The instant application is a Continuation of US Application 08/737,492, filed November 18, 1996 which is a National Stage Application based on PCT/US95/06228 filed May 18, 1995 which is a Continuation-in-Part of U.S. Application No. 08/246,320 filed May 19, 1994, now abandoned. All of the applications referred to in this paragraph are incorporated herein in their entirety by reference. Applicant notes that prosecution of the parent application, US Application 08/737,492 has been suspended due to a potential interference.

With this Preliminary Amendment, claims 1-21 have been canceled and claims 22-35 have been added to this continuation application. Claims 22-34 have been copied from US 5,827,321 to Roubin, issued October 27, 1998 in accordance with 37 C.F.R. § 1.604 to provoke an interference.

Support for all of the new claims is found in Figs. 11a, 11b and page 2, line 21 of US 08/246,320, the earliest application from which priority is claimed. Further support for new claim 35 is found, *inter alia*, in claim 9 as filed of US 08/246,320 from which priority is claimed. No new matter is added by the new claims.

Claims 22-35 are pending.

REQUEST FOR INTERFERENCE WITH PATENT UNDER 37 C.F.R. §1.607

Applicant respectfully requests that an interference be declared between the application and US 5,827,321 to Roubin, issued October 27, 1999. Claims 22-34 have been copied from the Roubin patent and correspond to claims 1-7, 9, 13-16 and 20 of Roubin. With the submission of this Preliminary Amendment, the claims have been copied within one year of issuance of the Roubin patent.

Proposed Count:

A stent comprising:

 a plurality of annular elements, each annular element having a compressed state and an expanded state, wherein each annular element has a longitudinal dimension which is smaller in the radially expanded state than in the compressed state; and

 connecting members connecting adjacent annular elements;

 wherein the annular elements and connecting members are made of Nitinol, with each connecting member preset with an elasticity which causes the connecting member to elongate longitudinally when the annular elements are in their expanded state to compensate for the smaller longitudinal dimension of the annular elements in the expanded state.

Claims of Patent corresponding to proposed count:

Claim 1 of Roubin corresponds to the proposed count verbatim. Claims 2-7, 9, 13-16 and 20 dependent thereon correspond to the proposed count.

1. A stent comprising:

 a plurality of annular elements, each annular element having a compressed state and an expanded state, wherein each annular element has a longitudinal dimension which is smaller in the radially expanded state than in the compressed state; and

 connecting members connecting adjacent annular elements;

 wherein the annular elements and connecting members are made of Nitinol, with each connecting member preset with an elasticity which causes the connecting member to elongate longitudinally when the annular elements are in their expanded state to compensate for the smaller longitudinal dimension of the annular elements in the expanded state.

Claims of application pending in application within one year of patent issuance:

22. A stent comprising:

 a plurality of annular elements, each annular element having a compressed state and an expanded state, wherein each annular element has a longitudinal dimension which is smaller in the radially expanded state than in the compressed state; and

connecting members connecting adjacent annular elements;

wherein the annular elements and connecting members are made of Nitinol, with each connecting member preset with an elasticity which causes the connecting member to elongate longitudinally when the annular elements are in their expanded state to compensate for the smaller longitudinal dimension of the annular elements in the expanded state.

23. The stent of claim 22, wherein each annular element comprises a plurality of alternating struts and apices connected to each other to form a substantially annular configuration.

24. The stent of claim 23, wherein the connecting members are connected to the apices of the adjacent annular members.

25. The stent of claim 23, wherein the plurality of struts comprises left and right struts, with each pair of left and right struts connected to each other at an apex.

26. The stent of claim 23, wherein each strut has a longitudinal dimensional which is smaller when the annular elements are in the expanded state than in the compressed state.

27. The stent of claim 23, wherein each strut has a longitudinal dimensional which is larger when the annular elements are in the compressed state than in the expanded state.

28. The stent of claim 23, wherein at least one of the annular elements is closed such that the plurality of alternating struts and apices are connected to each other to form a closed annular element.

29. The stent of claim 22, wherein at least one of connecting member has a plurality of alternating segments.

30. The stent of claim 29, wherein the at least one connecting member has a plurality of alternating and angled straight segments.

31. The stent of claim 22, wherein each connecting member has a larger longitudinal dimension when each annular element is in the expanded state than in the compressed state to compensate for the smaller longitudinal dimension of the annular element in the expanded state.
32. The stent of claim 22, wherein each connecting member has a smaller longitudinal dimension when each annular element is in the compressed state than in the expanded state to compensate for the larger longitudinal dimension of the annular element in the compressed state.
33. The stent of claim 22, wherein the stent has a plurality of segments along its length, each segment assuming a different diameter when the annular elements are in their expanded state.
34. The stent of claim 22, wherein the annular elements and connecting members define an alternating longitudinal pattern of annular elements and connecting members.

Correspondence of Claim 23-34 to the Count:

Claims 23-34 are dependent claims from independent claim 22 listed above.

Application of Claims 22-34 to the Specification

22. A stent comprising:	Figs 11a and 11b
a plurality of annular elements,	annular elements labeled 110
each annular element having a compressed	see 110 in Figs. 11a and 11b
state and an expanded state,	
wherein each annular element has a	see 110 in Figs. 11a and 11b - element 110
longitudinal dimension which is smaller in	inherently reduces in length in the expanded
the radially expanded state than in the	state
compressed state; and	

connecting members connecting adjacent annular elements;

wherein the annular elements and connecting members are made of Nitinol,

with each connecting member preset with an elasticity which causes the connecting member to elongate longitudinally when the annular elements are in their expanded state to compensate for the smaller longitudinal dimension of the annular elements in the expanded state.

see 112 in Figs. 11a and 11b

specification page 7, lines 12-16,

elongation of 112 shown in Fig. 11b

23. The stent of claim 22, wherein each annular element comprises a plurality of alternating struts and apices connected to each other to form a substantially annular configuration.

alternating struts 114
apices 116

24. The stent of claim 23, wherein the connecting members are connected to the apices of the adjacent annular members.

shown in both Figs. 11a and 11b

25. The stent of claim 23, wherein the plurality of struts comprises left and right struts, with each pair of left and right struts connected to each other at an apex.

left struts 114a
right struts 114b

26. The stent of claim 23, wherein each strut has a longitudinal dimensional which is smaller when the annular elements are in the expanded state than in the compressed state.

struts 114 orient at an oblique angle relative to longitudinal axis of stent as shown in Fig. 11b thereby resulting in reduced longitudinal dimension on expansion

27. The stent of claim 23, wherein each strut has a longitudinal dimensional which is larger when the annular elements are in the compressed state than in the expanded state.

see comments for claim 26

28. The stent of claim 23, wherein at least one of the annular elements is closed such that the plurality of alternating struts and apices are connected to each other to form a closed annular element.

all of annular elements 11 are closed

29. The stent of claim 22, wherein at least one of connecting member has a plurality of alternating segments.

see segments 112a-c

30. The stent of claim 29, wherein the at least one connecting member has a plurality of alternating and angled straight segments.

segments 112c are angled relative to the longitudinal axis of the stent

31. The stent of claim 22, wherein each connecting member has a larger longitudinal dimension when each annular element is in the expanded state than in the compressed

see element 112 in Fig. 11b

state to compensate for the smaller longitudinal dimension of the annular element in the expanded state.

32. The stent of claim 22, wherein each connecting member has a smaller longitudinal dimension when each annular element is in the compressed state than in the expanded state to compensate for the larger longitudinal dimension of the annular element in the compressed state.

see above comments for claim 31

33. The stent of claim 22, wherein the stent has a plurality of segments along its length, each segment assuming a different diameter when the annular elements are in their expanded state.

see Figs. 11a and 11b

34. The stent of claim 22, wherein the annular elements and connecting members define an alternating longitudinal pattern of annular elements and connecting members.

see Figs. 11a and 11b

Prima Facie Showing of Entitlement to Judgement

The instant application is a continuation of US Application 08/737,492 which is a National Stage Application based on PCT/US95/06228 filed May 18, 1995, claiming priority as a Continuation-in-Part of US Application 08/246,320 filed May 19, 1994. The disclosure which is relied upon in support of the instant claims is found in 08/246,320 filed May 19, 1994.

PCT/US95/06228 published as WO 95/31945 November 30, 1995. US 5,827,321 to Roubin was filed February 7, 1997. The instant application, therefore, predates Roubin in excess of two years. A copy of the Roubin patent accompanies this Preliminary Amendment. Moreover, the published PCT application WO 95/31945 anticipates Roubin under 35 U.S.C. 102(b).

Claim 35

Claim 35 recites an additional, patentably distinct limitation which renders the claim further patentable over claim 22 from which it depends. The subject matter associated with the additional limitations presented by claim 35 has been found to be allowable in US Application 08/246,320 from which priority is claimed. Prosecution of US Application 08/246,320 has been suspended because of a potential interference. It is noted, however, that the claims in that application do not include the limitations provided in claim 22 from which claim 35 depends.

It is also noted that the subject matter of this claim anticipates the Roubin claims discussed above.

CONCLUSION

In light of the above comments, allowance of claim 35 is respectfully requested. It is further requested, as to claims 22-34 that an interference be declared and that priority of invention be adjudged to the instant Applicant.

Respectfully submitted,

VIDAS, ARRETT & STEINKRAUS

Date: October 26, 1999

By:



Jonathan Grad
Registration No.: 41,795

6109 Blue Circle Drive, Suite 2000
Minnetonka, MN 55343-9131
Telephone: (612) 563-3000
Facsimile: (612) 563-3001
F:\WPWORK\UG8606-AMD.A04